NC/QC/W-06/2019-20/ST -C1

Date: 16-12-2019

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
Project Division, Yelahanka Zone,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**157 min**	Shall not be less than 30 min
2	Final setting time	**285 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**1.86 %**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**1.98 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	**28.71 N/Sq mm**	Shall not be less than 27 N/Sqmm

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[illegible]2019-20/ST-PCC1

Date: 16-12-2019

TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.

[Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}

Ref: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
Project Division, Yelahanka Zone,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	100.00	85-100	90 – 100
20mm	62.95	0 -20	30- 70
10mm	26.40	0 -5	10- 35
4.75mm	3.20	------	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	100.00	90-100	90-100	90-100	The Sample Conforms to Grading Zone-II
02.36	97.80	60-95	75-100	85-100	
01.18	81.35	30-70	55-90	75-100	
600.mic	44.95	15-34	35-59	60-79	
300.mic	16.10	5-20	8-30	12-40	
150.mic	6.70	0-10	0-10	0-10	

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NC/QC/W-06/2019-20/ST-C2

Date: 19-12-2019

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
Project Division, Yelahanka Zone,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**167 min**	Shall not be less than 30 min
2	Final setting time	**270 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**1.89 %**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**1.92 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results	**28.46 N/Sq mm**	Shall not be less than 27 N/Sqmm

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NC/QC/W-06/2019-20/ST-FA1 **Date: 19-12-2019**

1. TESTING OF FINE AGGREGATES :

Sub: Testing of Fine Aggregates.

{Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}

Ref.: Material testing/PMC/19-20,

Report Required for: *Assistant Executive Engineer,*
Project Division, Yelahanka Zone,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

TABLE - 1.1 : SIEVE ANALYSIS :

IS Sieve Size,mm	**Percentage Passing**	Specification as Per IS: 383-1970(Reaffirmed 2002) **Percentage Passing**			Remarks
		Zone-I	**Zone-II**	**Zone -II**	
04.75	**98.30**	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	**81.95**	60-95	75-100	85-100	
01.18	**64.40**	30-70	55-90	75-100	
600. mic	**52.75**	15.34	35-59	60-79	
300.mic	**20.10**	5-20	8-30	12-40	
150.mic	**7.35**	0-10	0-10	0-10	

TABLE 1.2 ;

Sl No	**Test Conducted**	**Sample**	**Results**	**Requirements** as Per IS. Specification IS :383-1970 (Reaffirmed 2002)
1	Bulking of Sand	001	**17.12 %**	-----
2	Silt Content	----	**0.56%**	Not more than 8%
3	Specific Gravity	----	**2.62**	-------

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NCQC/W-06/2019-20/ST-CA1 **Date: 19-12-2019**

1. TESTING OF COARSE AGGREGATES (20 mm):

Sub: Testing of Construction Materials.

{Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
Project Division, Yelahanka Zone,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
	20 mm Sample	Single size	Graded
40 mm	**100.00**	100.00	100.00
20 mm	**98.65**	85-100	90 - 100
10 mm	**53.20**	0 - 20	25 - 55
4.75 mm	**3.90**	0 - 5	0 - 10

TABLE 1.2 :

SL No	Test conducted	Results	**Requirements** as per IS:383-1970 & Tests Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2002)
1.	Flakiness Index	**23.16 %**	Not to exceed 25 %
2.	Crushing value	**26.87 %**	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

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EMAIL:newzen576@gmail.com

NC/QC/W-06/2019-20/ST-S1

Date: 19-12-2019

1. TEST REPORT ON REINFORCEMENT STEEL:

Sub: Testing of Reinforcement Steel of diameter 10 mm **TMT Steel.**

{Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
Project Division, Yelahanka Zone,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

TABLE – 1

SL No	Details	For 10 mm	
		Test Results	Min Req. as per IS 1786-2008
01	Observed diameter of bar	**10.0 mm**	10.0 mm
02	Observed Wt/m Length **Kg/m**	**0.620**	0.567
03	Proof stress/Yield stress, fy , **N/mm^2**	**539.0**	500.0
04	Bend/ Re bend Test	**Ok**	---
05	Percentage of Elongation, %	**21.95**	12.00
06	Ultimate Tensile Strength **N/mm^2**	**648.0**	545.0

Page No. 1/1,

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NC/QC/W-06/2019-20/ST-CB1 Date: 30-12-2019

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
Project Division, Yelahanka Zone,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{25}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	23-12-19	30-12-19	07	22500	460	20.44	**20.07**
	002	"	"	"	"	445	19.78	
	003	"	"	"	"	450	20.00	

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NCQC/W-06/2019-20/ST-CB1a

Date: 20-01-2020

L. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).
{Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
Project Division, Yelahanka Zone,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{25}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	23-12-19	20-01-20	28	22500	605	26.89	**26.96**
	002	"	"	"	"	615	27.33	
	003	"	"	"	"	600	26.67	

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NCQC/W-06/2019-20/ST-C3

Date: 16-12-2019

TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
Project Division, Yelahanka Zone,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**161 min**	Shall not be less than 30 min
2	Final setting time	**275 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**1.79 %**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**1.84 mm**	Shall not be more than 10 mm
5	Compressive strength b) 3 days (average of three results)	**28.91 N/Sq mm**	Shall not be less than 27 N/Sqmm

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Page No. 1/1,

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NCW-06/2019-20/ST-PCC2 **Date: 16-12-2019**

TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
{Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}

Ref.: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
Project Division, Yelahanka Zone,
BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	**100.00**	85-100	90 – 100
20mm	**62.80**	0 -20	30- 70
10mm	**26.05**	0 -5	10- 35
4.75mm	**4.30**	------	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	**100.00**	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	**96.85**	60-95	75-100	85-100	
01.18	**82.10**	30-70	55-90	75-100	
600.mic	**45.60**	15-34	35-59	60-79	
300.mic	**15.05**	5-20	8-30	12-40	
150.mic	**6.80**	0-10	0-10	0-10	

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Date: 30-12-2019

TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
[Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}
Ref.: Material testing/PMC/19-20,
Report Required for: Assistant Executive Engineer,
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Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	23-12-19	30-12-19	07	22500	380	16.89	**16.52**
	002	"	"	"	"	365	16.22	
	003	"	"	"	"	370	16.44	

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NCW-06/2019-20/ST-CB2a

Date: 20-01-2020

TEST REPORT ON CEMENT CONCRETE CUBES:

Testing of Concrete Cubes (for 28days Compressive Strength).

Project*: Improvements of existing toilets and construction of Sump tank compound wall and grills in ward no 06 Byatarayanapura Sub Division.}

Ref: Material testing/PMC/19-20,

Report Required for: Assistant Executive Engineer,
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BBMP, Bangalore.

Name of the Agency/Contractor*: Sri. P. Hemanth, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	23-12-19	20-01-20	29	22500	505	22.44	22.07
	002	"	"	"	"	490	21.78	
	003	"	"	"	"	495	22.00	

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